

Instruction Manual for Day-Night Vandal Resistant Dome Camera

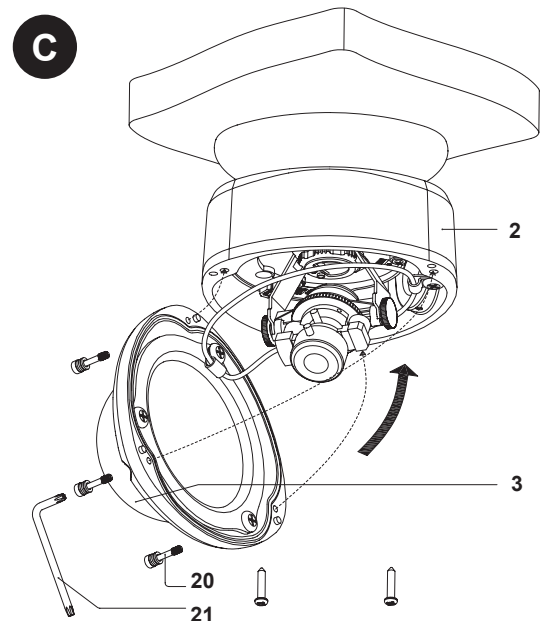
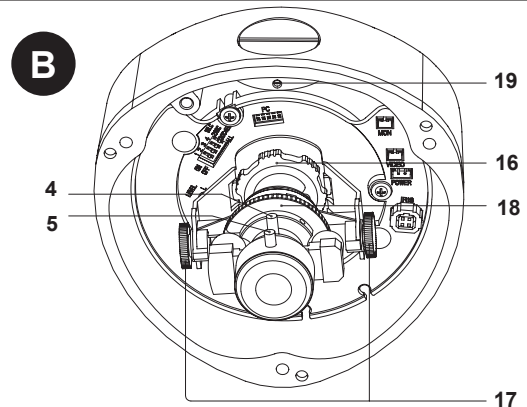
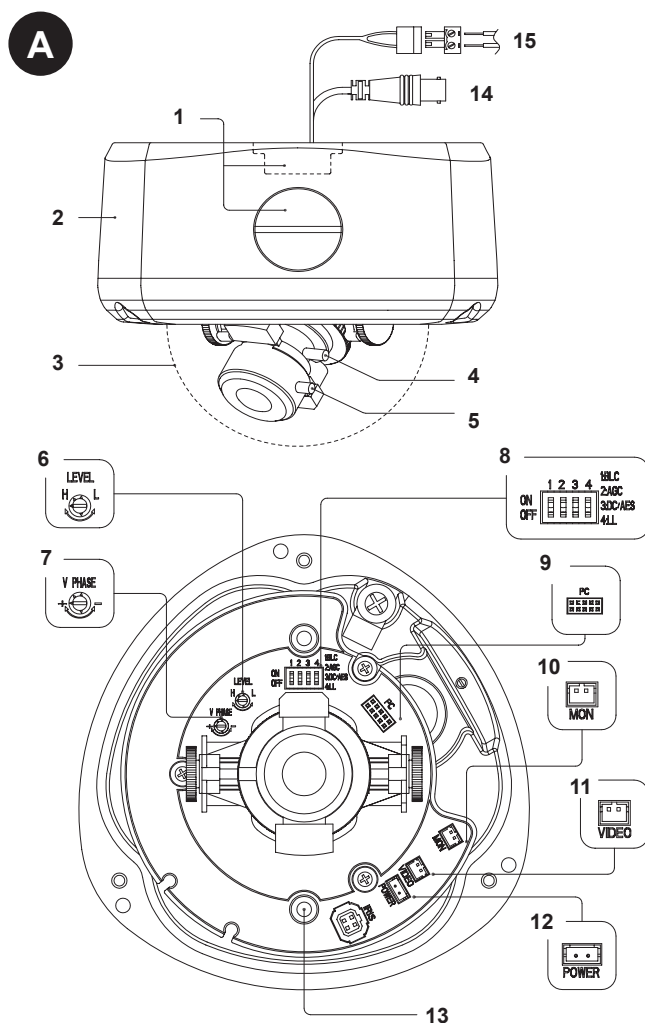
Model number Part Code
 Modelnummer Art. code
 Typen-Nummer Art.-Nr
 CVVS1415-LP 2GF1185-8AE

Accessories / Accessoires / Zubehör

CVVA-CD	2GF1086-8AH	Clear Lower Dome - Vandal Resistant / NI: Transparante dome - vandalbestendig / De: Transparente Kuppel - Sabotagegeschützt
CVVA-WB	2GF1086-8AD	Wall Bracket / NI: Muurbeugel / De: Wandhalterung
CVVA-FMK	2GF1086-8AC	Flush Mount Kit / NI: Kit voor verzonken montage / De: Unterputzmontagesatz

Document / Document / Dokument
 Edition / Editie / Ausgabe
 Supersedes / Vervangt / Ersetzt

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 Rev A.1
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WARNING

To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture. This installation should be made by a qualified service person and should conform to all local codes. Connect the equipment to 12 V DC or 24 V AC UL Listed Class 2 Power Supply. The CAUTION label shown above is attached to the dome.



WAARSCHUWING

Stel dit product niet bloot aan regen of vocht, want dat zou brand of een elektrische schok kunnen veroorzaken. Het installeren moet door een deskundige technicus en conform alle plaatselijk geldende voorschriften worden uitgevoerd. Sluit de apparatuur aan op een UL-gecertificeerde voeding van 12 V DC of 24 V AC, klasse 2. Bovenstaande waarschuwingsticker is op de dome bevestigd.

WARNUNG

Um die Gefahr eines Feuers oder Elektroschocks zu vermeiden, darf dieses Gerät weder Regen noch Feuchtigkeit ausgesetzt werden. Die Installation sollte von einem qualifizierten Servicetechniker gemäß den geltenden Vorschriften ausgeführt werden. Schließen Sie das Gerät an ein Netzteil mit 12 V Gleichstrom oder 24 V Wechselstrom (UL Class 2) an. Der Warnhinweis oben ist an der Kuppel angebracht.

Package contents

- Dome camera
- 1 service monitor cable
- 1 remote PC connection cable (Additional RS232 cable is required to interface to your PC (not included))
- Remote software CD
- 2 fixing screws
- 2 wall plugs
- Fixing template
- Installation and operating instructions (this document)
- Screwdriver

Dome camera parts

- See figures **A, B** and **C**.
1. Cable entry holes
 2. Unit casing
 3. Dome casing
 4. Zoom lever/locking screw
 5. Focus lever/locking screw
 6. Iris LEVEL screw
 7. V phase adjustment screw
 8. Mode setting DIP switches
 9. PC connection port
 10. Monitor output
 11. Video connector - Auto Iris Lens
 12. Power connector - Auto Iris Lens
 13. Unit mounting holes
 14. BNC cable
 15. Power cable
 16. Locking ring
 17. Panning adjustment wheel
 18. Axial ring
 19. Conduit hole plug screw
 20. Security screws
 21. Security screwdriver

Installing the camera

Step 1: Connecting the cables

(a) Using the side conduit hole

1. Loosen the conduit hole plug screw (19) on the side conduit hole. Remove the plug.
2. Connect the BNC cable (14) to the video connector (11).
3. Connect the power supply cable (15) to the power connector (12).
You can use 24 V AC or 12 V DC connection.

Caution
If using a DC supply, make sure the polarity is correct. Incorrect connection may cause malfunction and/or damage to the video camera.

4. Clean the thread grooves in the bottom conduit hole and install the removed plug firmly into the bottom conduit hole to prevent moisture from getting inside the casing.

(b) Using the bottom conduit hole

The BNC cable and power cable are installed through the bottom conduit hole (Factory setting). Connect the cables to the respective connectors (14)(15).

Step 2: Mounting the camera

1. Place the template on the mounting surface and mark the holes.
2. Drill two holes as marked.
3. Insert the wall plugs into the holes.
4. Fasten the unit with the screws provided.

Caution
To ensure weatherproof rating, prior to fastening the unit the base of the dome should be completely sealed with a waterproof silicon to avoid water to penetrate.

Be careful when installing the pipe /plug in the conduit hole; the screw part of the pipe /plug must be 12 mm or less so that it will not damage the inside unit.

Step 3: Adjusting the camera position

1. Hold the lens so that it does not rotate.
2. Loosen the locking ring (16) and panning adjustment wheel (17).

Caution
Do not loosen the locking ring without holding the lens in place. Otherwise the lens may rotate with the locking ring and the cable may twist.

3. Turn the lens and axial ring (18) in the desired direction.

Note
If the camera does not rotate smoothly, loosen the locking ring completely. The locking ring has an internal stop and will not come off.

Caution
Do not turn the lens more than 360°, as this may cause internal cables to disconnect or break.

4. Lightly tighten the locking ring (16) and panning adjustment wheel (17)

Step 4: Adjusting zoom and focus

1. Loosen the zoom lever/locking screw (4) by turning it counter-clockwise.
2. Rotate the zoom ring to achieve the desired picture.
3. Loosen the focus lever/locking screw (5) by turning it counter-clockwise.
4. Rotate the focus ring to adjust the focus.
5. If readjustment is necessary, repeat the steps above.
6. Retighten the zoom lever/locking screw (4) and the focus lever/locking screw (5).

Caution
Retighten the locking screws to prevent loss of adjustment.

7. Hold the lens and tighten the locking ring (16) and panning adjustment wheel (17).

Optional settings

- Adjust the brightness of the picture using the Iris LEVEL screw (6):
L = low, makes the picture darker
H = high, makes the picture brighter
 - Adjust the phase difference between cameras (use V Phase adjustment screw (7)).
 - Set DIP switches (8) to activate or deactivate the following features:
 - Backlight compensation (BLC)
 - Automatic gain control (AGC).
 - Line lock (LL).
Sets camera synchronisation to internal (OFF) or line lock (ON). Line lock is only available with 24 V AC.
- The DC / AES DIP switch is not in use, and is always set to DC position.

Step 5: Remote PC connection

This camera is equipped with the latest DSP technology. The remote software kit allows remote access and further enhances the camera's usability and functionality. Please install the remote software onto you PC in accordance with the "readme" file on the CD.

Note
Please read the camera's parameters and save them to a file prior to performing any other adjustments. During this process, the picture may flicker or distort. This is normal during this operation and the picture will return to normal once completed.

- Additional camera functions include
- Linear AGC gain control (ON: 22dB ~ 30dB; OFF: 16dB ~ 24dB)
 - Pedestal level adjustment (0~9 IRE)
 - Predefined BLC fields (6)
 - Sharpness (low/mid/high)
 - Day/Night transition level (adjustable)
 - Image Option (negative/monochrome)
 - Read camera parameters
 - Write to camera memory
 - Restore factory default settings
 - Save and reload parameters from file

Step 6: Attaching the dome to the unit

Note
Use a soft, lint-free cloth to wipe the dome cover clean and remove fingerprints.

1. Clean the joint surfaces of the unit.
2. Place the dome on the unit (see figure C).
3. Match the screws on the dome casing (3) to the screw holes (3 locations) on the unit casing (2).
4. Holding the dome casing to maintain the matched positions, tighten the three screws (20) with the screwdriver (21) and lock the dome casing to the unit casing.

General guidelines

Operation and storage

- Avoid filming very bright objects (such as light fittings) for an extended period.
- Do not operate or store the unit in the following locations:
 - Extremely hot or cold places.
 - Close to sources of strong magnetism.
 - Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters.
 - In humid or excessively dusty places.
 - Where exposed to mechanical vibrations.
 - Close to fluorescent lamps or objects reflecting light.
 - Under unstable or flickering light sources.

Cleaning

- Use a soft, dry cloth to remove fingerprints or dust from the dome.
- If the dome is very dirty, use a small amount of mild detergent on a damp cloth for cleaning. Ensure the dome is dry before attaching the dome to the unit.

Caution
Do not use volatile solvents such as alcohol, benzene or thinners. These solvents may damage the surface.

Transportation

Use the original packing material or materials of equal quality.

CCD characteristics

The following conditions may be observed when using a CCD camera. These are inherent in the design and do not stem from any fault in the camera itself.

- Vertical smear: This phenomenon occurs when viewing a very bright object.
- Patterned noise: This is a fixed pattern which may appear over the entire monitor screen when the camera is operated at a high temperature.
- Jagged picture: When viewing stripes, straight lines, or similar patterns, the image on the screen may appear jagged.

Specifications

General

Power requirement 12 V DC or 24 V AC
Power consumption 3.5 W (max.)
Operating temperature -10 to +50°C, 90% RH max.
Storage temperature -20 to +60°C, 70% RH max.
External dimensions 138 x 112 mm
Weight Approx. 1.7 kg
Unit material Aluminium
Dome material Polycarbonate
IP Rating IP66

Imaging system

Imaging device Exview™ Interline transfer
1/4 inch CCD
Effective picture elements.PAL: 752(H) * 582(V)
TV system.....PAL: 2:1 Interlace,
15.625 kHz horizontal,
50 Hz vertical

Optical system and other specifications

Day-Night Mode.....Mechanical IR filter (automatic)
Focal length.....2.8 to 5.8 mm
Maximum rel. aperture.....F1.4
Viewing angleHorizontal: 74.7° (wide angle) -
35.9° (telescopic)
Vertical: 55.2° (wide angle) -
26.9° (telescopic)

Minimum object distance . 0.2 m
Synchronisation system...Internal or Line lock
(24 V AC only)

Horizontal resolution480 TV lines
Minimum illumination0.34 lx in C/L mode
0.15 lx in B/W mode
(AGC ON, more than 50% of
image output, without dome
cover)

Video output1.0 Vp-p 75 Ohm negative
sync.
Video S/N ratioMore than 50 dB (AGC OFF,
weighted)

White balance.....Automatic (2500 K - 10000 K)
AGCON/OFF switchable
ON: 30dB gain
OFF: 24dB gain
BLC.....ON (Center measured) / OFF
switchable (6 zones with remote
software)

Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.
The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital output device pursuant to Subpart B of part 15 of FCC rules.

Instruction Manual for Colour Vandal Resistant Dome Camera

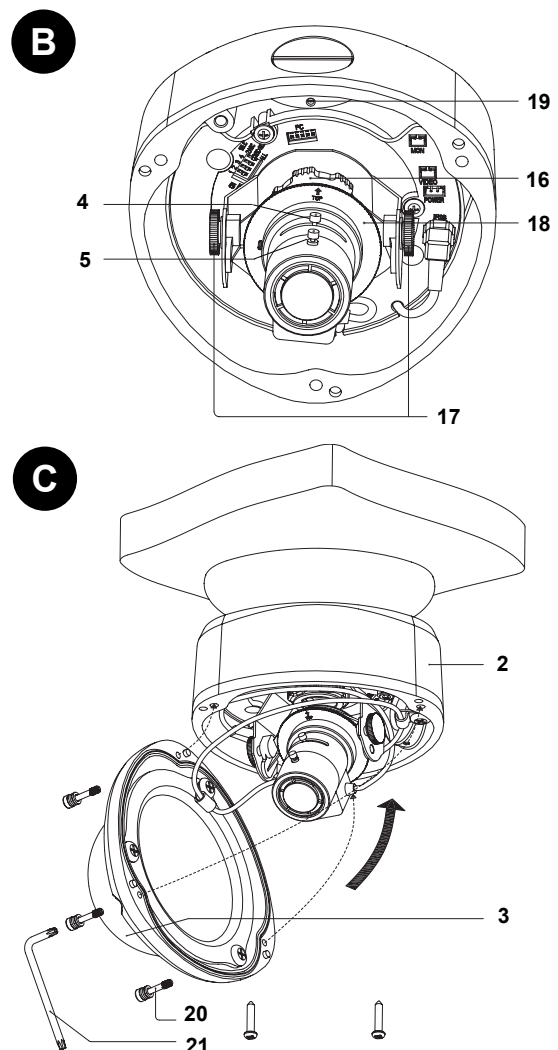
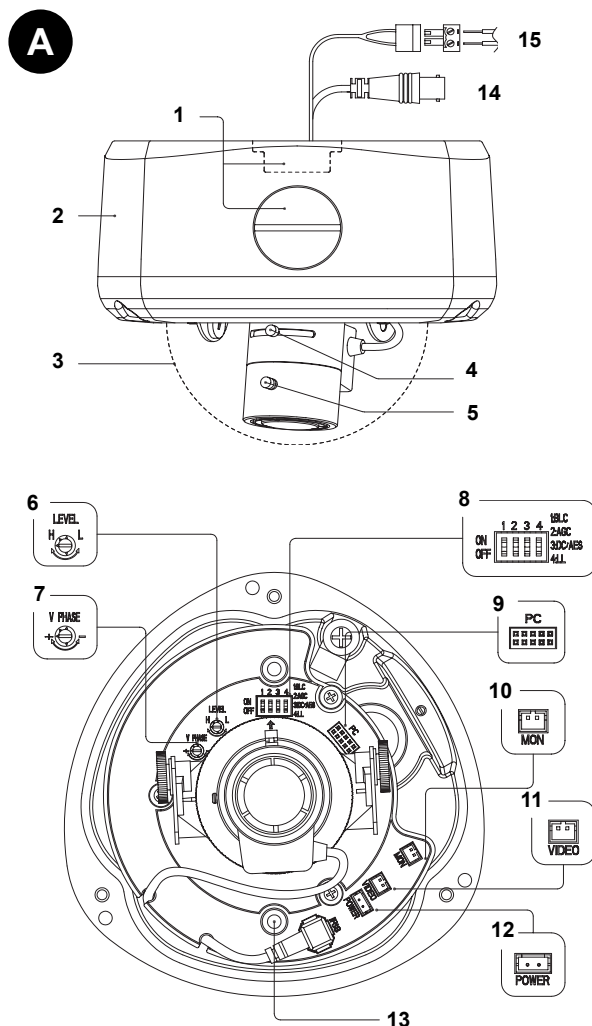
Model number **Part Code**
Modelnummer **Art.nr.**
Typen-Nummer **Art.-Nr**
 CVVC1315-LP 2GF1185-8AE

Accessories / Toebehoren / Zubehör

CVVA-CD	2GF1086-8AH	Clear Lower Dome - Vandal Resistant / NI: Transparente dome - vandaalbestendig / De: Transparente Kuppel - Sabotagegeschützt
CVVA-WB	2GF1086-8AD	Wall Bracket / NI: Muurbeugel / De: Wandhalterung
CVVA-FMK	2GF1086-8AC	Flush Mount Kit / NI: Kit voor verzonken montage / De: Unterputzmontagesatz

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WARNING

To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture. This installation should be made by a qualified service person and should conform to all local codes. Connect the equipment to 12 V DC or 24 V AC UL Listed Class 2 Power Supply. The CAUTION label shown above is attached to the dome.



WAARSCHUWING

Stel dit product niet bloot aan regen of vocht, want dat zou brand of een elektrische schok kunnen veroorzaken. Het installeren moet door een deskundige technicus en conform alle plaatselijk geldende voorschriften worden uitgevoerd. Sluit de apparatuur aan op een UL-gecertificeerde voeding van 12 V DC of 24 V AC, klasse 2. Bovenstaande waarschuwingssticker is op de dome bevestigd.

WARNING

Um die Gefahr eines Feuers oder Elektroschocks zu vermeiden, darf dieses Gerät weder Regen noch Feuchtigkeit ausgesetzt werden. Die Installation sollte von einem qualifizierten Servicetechniker gemäß den geltenden Vorschriften ausgeführt werden. Schließen Sie das Gerät an ein Netzteil mit 12 V Gleichstrom oder 24 V Wechselstrom (UL Class 2) an. Der Warnhinweis oben ist an der Kuppel angebracht.

Package contents

- Dome camera
- 1 service monitor cable
- 1 remote PC connection cable (Additional RS232 cable is required to interface to your PC (not included))
- Remote software CD
- 2 fixing screws
- 2 wall plugs
- Fixing template
- Installation and operating instructions (this document)
- Screwdriver

Dome camera parts

See figures **A**, **B** and **C**.

1. Cable entry holes
2. Unit casing
3. Dome casing
4. Zoom lever/locking screw
5. Focus lever/locking screw
6. Iris LEVEL screw
7. V phase adjustment screw
8. Mode setting DIP switches
9. PC connection port
10. Monitor output
11. Video connector - Auto Iris Lens
12. Power connector - Auto Iris Lens
13. Unit mounting holes
14. BNC cable
15. Power cable
16. Locking ring
17. Panning adjustment wheel
18. Axial ring
19. Conduit hole plug screw
20. Security screws
21. Security screwdriver

Installing the camera

Step 1: Connecting the cables

(a) Using the side conduit hole

1. Loosen the conduit hole plug screw (19) on the side conduit hole. Remove the plug.
2. Connect the BNC cable (14) to the video connector (11).
3. Connect the power supply cable (15) to the power connector (12).
You can use 24 V AC or 12 V DC connection.

Caution

If using a DC supply, make sure the polarity is correct. Incorrect connection may cause malfunction and/or damage to the video camera.

4. Clean the thread grooves in the bottom conduit hole and install the removed plug firmly into the bottom conduit hole to prevent moisture from getting inside the casing.

(b) Using the bottom conduit hole

The BNC cable and power cable are installed through the bottom conduit hole (Factory setting). Connect the cables to the respective connectors (14)(15).

Step 2: Mounting the camera

1. Place the template on the mounting surface and mark the holes.
2. Drill two holes as marked.
3. Insert the wall plugs into the holes.
4. Fasten the unit with the screws provided.

Caution

To ensure weatherproof rating, prior to fastening the unit the base of the dome should be completely sealed with a waterproof silicon to avoid water to penetrate.

Be careful when installing the pipe /plug in the conduit hole; the screw part of the pipe /plug must be 12 mm or less so that it will not damage the inside unit.

Step 3: Adjusting the camera position

1. Hold the lens so that it does not rotate.
2. Loosen the locking ring (16) and panning adjustment wheel (17).

Caution

Do not loosen the locking ring without holding the lens in place. Otherwise the lens may rotate with the locking ring and the cable may twist.

3. Turn the lens and axial ring (18) in the desired direction.

Note

If the camera does not rotate smoothly, loosen the locking ring completely. The locking ring has an internal stop and will not come off.

Caution

Do not turn the lens more than 360°, as this may cause internal cables to disconnect or break.

4. Lightly tighten the locking ring (16) and panning adjustment wheel (17)

Step 4: Adjusting zoom and focus

1. Loosen the zoom lever/locking screw (4) by turning it counter-clockwise.
2. Rotate the zoom ring to achieve the desired picture.
3. Loosen the focus lever/locking screw (5) by turning it counter-clockwise.
4. Rotate the focus ring to adjust the focus.
5. If readjustment is necessary, repeat the steps above.
6. Retighten the zoom lever/locking screw (4) and the focus lever/locking screw (5).

Caution

Retighten the locking screws to prevent loss of adjustment.

7. Hold the lens and tighten the locking ring (16) and panning adjustment wheel (17).

Optional settings

- Adjust the brightness of the picture using the Iris LEVEL screw (6):
L = low, makes the picture darker
H = high, makes the picture brighter
- Adjust the phase difference between cameras (use V Phase adjustment screw (7)).
- Set DIP switches (8) to activate or deactivate the following features:
 - Backlight compensation (BLC)
 - Automatic gain control (AGC).
 - Line Lock (LL).
Sets camera synchronisation to internal (OFF) or line lock (ON). Line lock is only available with 24 V AC.

The DC / AES DIP switch is not in use, and is always set to DC position.

Step 5: Remote PC connection

This camera is equipped with the latest DSP technology. The remote software kit allows remote access and further enhances the camera's usability and functionality. Please install the remote software onto you PC in accordance with the "readme" file on the CD.

Note

Please read the camera's parameters and save them to a file prior to performing any other adjustments. During this process, the picture may flicker or distort. This is normal during this operation and the picture will return to normal once completed.

Additional camera functions include

- Linear AGC gain control (18db ~ 30db)
- Pedestal level adjustment (0~9 IRE)
- Predefined BLC fields (6)
- Sharpness (low/mid/high)
- Read camera parameters
- Write to camera memory
- Restore factory default settings
- Save and reload parameters from file

Step 6: Attaching the dome to the unit

Note

Use a soft, lint-free cloth to wipe the dome cover clean and remove fingerprints.

1. Clean the joint surfaces of the unit.
2. Place the dome on the unit (see figure C).
3. Match the screws on the dome casing (3) to the screw holes (3 locations) on the unit casing (2).
4. Holding the dome casing to maintain the matched positions, tighten the three screws (20) with the screwdriver (21) and lock the dome casing to the unit casing.

General guidelines

Operation and storage

- Avoid filming very bright objects (such as light fittings) for an extended period.
- Do not operate or store the unit in the following locations:
 - Extremely hot or cold places.
 - Close to sources of strong magnetism.
 - Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters.
 - In humid or excessively dusty places.
 - Where exposed to mechanical vibrations.
 - Close to fluorescent lamps or objects reflecting light.
 - Under unstable or flickering light sources.

Cleaning

- Use a soft, dry cloth to remove fingerprints or dust from the dome.
- If the dome is very dirty, use a small amount of mild detergent on a damp cloth for cleaning. Ensure the dome is dry before attaching the dome to the unit.

Caution

Do not use volatile solvents such as alcohol, benzene or thinners. These solvents may damage the surface.

Transportation

Use the original packing material or materials of equal quality.

CCD characteristics

The following conditions may be observed when using a CCD camera. These are inherent in the design and do not stem from any fault in the camera itself.

- Vertical smear: This phenomenon occurs when viewing a very bright object.
- Patterned noise: This is a fixed pattern which may appear over the entire monitor screen when the camera is operated at a high temperature.
- Jagged picture: When viewing stripes, straight lines, or similar patterns, the image on the screen may appear jagged.

Specifications

General

Power requirement 12 V DC or 24 V AC
Power consumption 3.5 W (max.)
Operating temperature -10 to +50°C, 90% RH max.
Storage temperature -20 to +60°C, 70% RH max.
External dimensions 138 x 112 mm
Weight Approx. 1.6 kg
Unit material Aluminium
Dome material Polycarbonate
IP Rating IP66

Imaging system

Imaging device SuperHAD™ Interline transfer
1/3 inch CCD
Effective picture elements.PAL: 752(H) * 582(V)
TV system.....PAL: 2:1 Interlace,
15.625 kHz horizontal,
50 Hz vertical

Optical system and other specifications

Focal length 3.0 to 8.0 mm
Maximum rel. aperture..... Aspherical F1.0
Viewing angle Horizontal: 91.0° (wide angle) -
35.9° (telescopic)
Vertical: 66.6° (wide angle) -
26.9° (telescopic)
Minimum object distance . 0.2 m
Synchronisation system...Internal or Line lock
(24 V AC only)
Horizontal resolution 480 TV lines
Minimum illumination 0.14 lx
(AGC ON, more than 50% of
image output, without dome
cover)
Video output 1.0 Vp-p 75 Ohm negative
sync.
Video S/N ratio More than 50 dB (AGC OFF,
weighted)
White balance Automatic (2500 K - 10000 K)
AGC ON/OFF switchable
BLC ON (Center measured) / OFF
switchable (6 zones with
remote software)

Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital output device pursuant to Subpart B of part 15 of FCC rules.

Instruction Manual for Monochrome Vandal Resistant Dome Camera

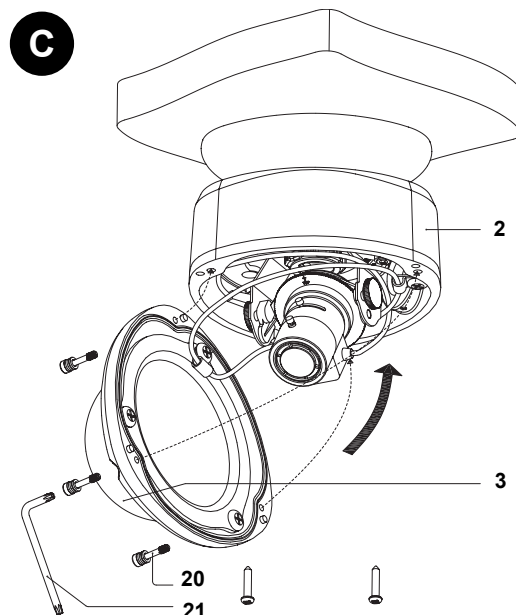
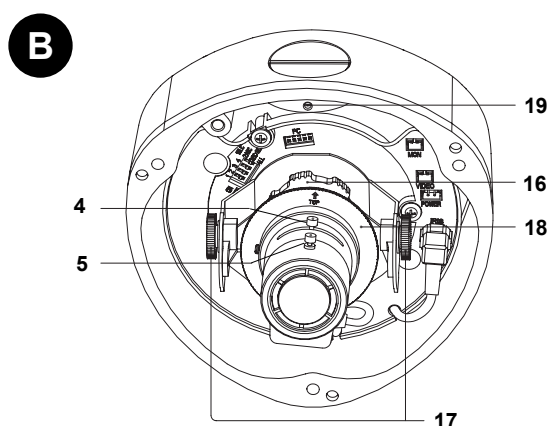
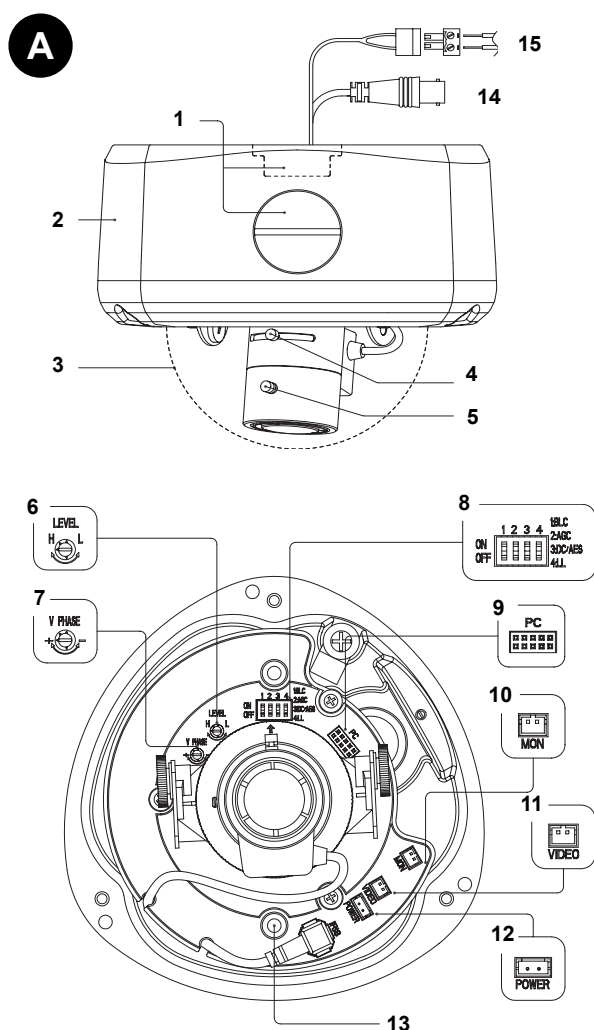
Model number **Part Code**
Modelnummer **Art.nr.**
Typen-Nummer **Art.-Nr**
 CVVB1315-LC 2GF1085-8AC

Accessories / Toebehoren / Zubehör

CVVA-CD	2GF1086-8AH	Clear Lower Dome - Vandal Resistant / NI: Transparante dome - vandaalbestendig / De: Transparente Kuppel - Sabotagegeschützt
CVVA-WB	2GF1086-8AD	Wall Bracket / NI: Muurbeugel / De: Wandhalterung
CVVA-FMK	2GF1086-8AC	Flush Mount Kit / NI: Kit voor verzonken montage / De: Unterputzmontagesatz

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WARNING

To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture. This installation should be made by a qualified service person and should conform to all local codes. Connect the equipment to 12 V DC or 24 V AC UL Listed Class 2 Power Supply. The CAUTION label shown above is attached to the dome.

WAARSCHUWING

Stel dit product niet bloot aan regen of vocht, want dat zou brand of een elektrische schok kunnen veroorzaken. Het installeren moet door een deskundige technicus en conform alle plaatselijk geldende voorschriften worden uitgevoerd. Sluit de apparatuur aan op een UL-gecertificeerde voeding van 12 V DC of 24 V AC, klasse 2. Bovenstaande waarschuwingssticker is op de dome bevestigd.

WARNING

Um die Gefahr eines Feuers oder Elektroschocks zu vermeiden, darf dieses Gerät weder Regen noch Feuchtigkeit ausgesetzt werden. Die Installation sollte von einem qualifizierten Servicetechniker gemäß den geltenden Vorschriften ausgeführt werden. Schließen Sie das Gerät an ein Netzteil mit 12 V Gleichstrom oder 24 V Wechselstrom (UL Class 2) an. Der Warnhinweis oben ist an der Kuppel angebracht.

Package contents

- Dome camera
- 1 service monitor cable
- 2 fixing screws
- 2 wall plugs
- Fixing template
- Screwdriver
- Installation and operating instructions (this document)

Dome camera parts

See figures **A**, **B** and **C**.

1. Cable entry holes
2. Unit casing
3. Dome casing
4. Zoom lever/locking screw
5. Focus lever/locking screw
6. Iris LEVEL screw
7. V phase adjustment screw
8. Mode setting DIP switches
9. PC connection port - Not used
10. Monitor output
11. Video connector - Auto Iris Lens
12. Power connector - Auto Iris Lens
13. Unit mounting holes
14. BNC cable
15. Power cable
16. Locking ring
17. Panning adjustment wheel
18. Axial ring
19. Conduit hole plug screw
20. Security screws
21. Security screwdriver

Installing the camera

Step 1: Connecting the cables

(a) Using the side conduit hole

1. Loosen the conduit hole plug screw (19) on the side conduit hole. Remove the plug.
2. Connect the BNC cable (14) to the video connector (11).
3. Connect the power supply cable (15) to the power connector (12).
You can use 24 V AC or 12 V DC connection.

Caution

If using a DC supply, make sure the polarity is correct. Incorrect connection may cause malfunction and/or damage to the video camera.

4. Clean the thread grooves in the bottom conduit hole and install the removed plug firmly into the bottom conduit hole to prevent moisture from getting inside the casing.

(b) Using the bottom conduit hole

The BNC cable and power cable are installed through the bottom conduit hole (Factory setting). Connect the cables to the respective connectors (14)(15).

Step 2: Mounting the camera

1. Place the template on the mounting surface and mark the holes.
2. Drill two holes as marked.
3. Insert the wall plugs into the holes.
4. Fasten the unit with the screws provided.

Caution

To ensure weatherproof rating, prior to fastening the unit the base of the dome should be completely sealed with a waterproof silicon to avoid water to penetrate.

Be careful when installing the pipe /plug in the conduit hole; the screw part of the pipe /plug must be 12 mm or less so that it will not damage the inside unit.

Step 3: Adjusting the camera position

1. Hold the lens so that it does not rotate.
2. Loosen the locking ring (16) and panning adjustment wheel (17).

Caution

Do not loosen the locking ring without holding the lens in place. Otherwise the lens may rotate with the locking ring and the cable may twist.

3. Turn the lens and axial ring (18) in the desired direction.

Note

If the camera does not rotate smoothly, loosen the locking ring completely. The locking ring has an internal stop and will not come off.

Caution

Do not turn the lens more than 360°, as this may cause internal cables to disconnect or break.

4. Lightly tighten the locking ring (16) and panning adjustment wheel (17).

Step 4: Adjusting zoom and focus

1. Loosen the zoom lever/locking screw (4) by turning it counter-clockwise.
2. Rotate the zoom ring to achieve the desired picture.
3. Loosen the focus lever/locking screw (5) by turning it counter-clockwise.
4. Rotate the focus ring to adjust the focus.
5. If readjustment is necessary, repeat the steps above.
6. Retighten the zoom lever/locking screw (4) and the focus lever/locking screw (5).

Caution

Retighten the locking screws to prevent loss of adjustment.

7. Hold the lens and tighten the locking ring (16) and panning adjustment wheel (17).

Optional settings

- Adjust the brightness of the picture using the Iris LEVEL screw (6):
L = low, makes the picture darker
H = high, makes the picture brighter
- Adjust the phase difference between cameras (use V Phase adjustment screw (7)).
- Set DIP switches (8) to activate or deactivate the following features:
 - Backlight compensation (BLC)
 - Automatic gain control (AGC).
Automatically adjusts the picture to suit ambient brightness.
 - Line Lock (LL).
Sets camera synchronisation to internal (OFF) or line lock (ON). Line lock is only available with 24 V AC.

The DC / AES DIP switch is not in use, and is always set to DC position.

Step 5: Attaching the dome to the unit

Note

Use a soft, lint-free cloth to wipe the dome cover clean and remove fingerprints.

1. Clean the joint surfaces of the unit.
2. Place the dome on the unit (see figure C).
3. Match the screws on the dome casing (3) to the screw holes (3 locations) on the unit casing (2).
4. Holding the dome casing to maintain the matched positions, tighten the three screws (20) with the screwdriver (21) and lock the dome casing to the unit casing.

General guidelines

Operation and storage

- Avoid filming very bright objects (such as light fittings) for an extended period.
- Do not operate or store the unit in the following locations:
 - Extremely hot or cold places.
 - Close to sources of strong magnetism.
 - Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters.
 - In humid or excessively dusty places.
 - Where exposed to mechanical vibrations.
 - Close to fluorescent lamps or objects reflecting light.
- Under unstable or flickering light sources.

Cleaning

- Use a soft, dry cloth to remove fingerprints or dust from the dome.
- If the dome is very dirty, use a small amount of mild detergent on a damp cloth for cleaning. Ensure the dome is dry before attaching the dome to the unit.

Caution

Do not use volatile solvents such as alcohol, benzene or thinners. These solvents may damage the surface.

Transportation

Use the original packing material or materials of equal quality.

CCD characteristics

The following conditions may be observed when using a CCD camera. These are inherent in the design and do not stem from any fault in the camera itself.

- Vertical smear: This phenomenon occurs when viewing a very bright object.
- Patterned noise: This is a fixed pattern which may appear over the entire monitor screen when the camera is operated at a high temperature.
- Jagged picture: When viewing stripes, straight lines, or similar patterns, the image on the screen may appear jagged.

Specifications

General

Power requirement	12 V DC or 24 V AC
Power consumption	3.0 W (max.)
Operating temperature	-10 to +50°C, 90% RH max.
Storage temperature	-20 to +60°C, 70% RH max.
External dimensions	140 x 112 mm
Weight	Approx. 1.6 kg
Unit material	Aluminium
Dome material	Polycarbonate
IP Rating	IP66

Imaging system

Imaging device	SuperHAD™ Interline transfer
	1/3 inch CCD
Effective picture elements	CCIR: 752(H) * 582(V)
TV system	CCIR: 2:1 Interlace,
	15.625 kHz horizontal,
	50 Hz vertical

Optical system and other specifications

Focal length	3.0 to 8.0 mm
Maximum rel. aperture	F1.0
Viewing angle	Horizontal: 91.0° (wide angle) - 35.9° (telescopic) Vertical: 66.6° (wide angle) - 26.9° (telescopic)
Minimum object distance ..	0.2 m
Synchronisation system ..	Internal or Line lock (24 V AC only)
Horizontal resolution	580 TV lines
Minimum illumination	0.05 lx (AGC ON, more than 50% of image output, without dome cover)
Video output	1.0 Vp-p 75 Ohm negative sync.
Video S/N ratio	More than 50 dB (AGC OFF, weighted)
AGC	ON/OFF switchable
BLC	ON (Center measured) / OFF switchable

Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment. The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital output device pursuant to Subpart B of part 15 of FCC rules.